

CLAIMS

1. An undiluted solution of a hydrophilicity maintaining and promoting agent for a polysilazane-containing coating film that is an aqueous solution with a pH value in the range of from 4.5 to 7.0, which comprises 5 to 25% by weight of an anionic surfactant, 0.5 to 20% by weight of an amphoteric surfactant, 4 to 6% by weight of a nonionic surfactant and if necessary an antiseptic.

2. The undiluted solution of a hydrophilicity maintaining and promoting agent for a polysilazane-containing coating film according to claim 1, wherein the anionic surfactant is at least one kind selected from the group consisting of sec-alkane sulfonate, alkyl sulfate (a number of carbon atoms in the alkyl group is 8 to 18), polyoxyethylene (an average number of added moles is 1 to 4) alkyl sulfate (a number of carbon atoms in the alkyl group is 8 to 18), α -olefin sulfonate (a number of carbon atoms in the alkyl group is 10 to 18), and alkyl benzene sulfonate (a number of carbon atoms in the alkyl group is 8 to 18); the amphoteric surfactant is at least one kind selected from the group consisting of coconut oil fatty acid amide propyl betaine, alkyl dimethyl acetic acid betaine (a number of carbon atoms in the alkyl group is 8 to 18), and an alkyl dimethyl amine oxide (a number of carbon atoms in the alkyl group is 8 to 18); the nonionic surfactant is at least one kind selected from the group consisting of polyoxyethylene (an average number of added moles is 3 to 12)

undecyl alcohol, polyoxyethylene (an average number of added moles is 3 to 12) alkyl ether (a number of carbon atoms in the alkyl group is 8 to 18), and polyoxyethylene (an average number of added moles is 3 to 12) nonyl phenyl ether; and the antiseptic is at least one kind selected from the group consisting of benzoate, an isothiazoline based antiseptic, a thiazoline based antiseptic and a triazine based antiseptic.

3. The undiluted solution of a hydrophilicity maintaining and promoting agent for a polysilazane-containing coating film according to claim 1 or 2, wherein the anionic surfactant, the amphoteric surfactant, the nonionic surfactant and if necessary the antiseptic are dissolved in water, and then the pH of the solution is adjusted in the range of 4.5 to 7.0 using an organic acid.

4. A hydrophilicity maintaining and promoting agent for a polysilazane-containing coating film, which is obtained by diluting the undiluted solution described in any one of claims 1 to 3 with water.

5. A hydrophilicity promoting agent for a polysilazane-containing coating film, which is obtained by diluting the undiluted solution described in any one of claims 1 to 3 with water to from 3 to 15 times.

6. A hydrophilicity maintaining agent for a polysilazane-containing coating film, which is obtained by diluting the undiluted solution described in any one of claims 1 to 3 with water to from 30 to 70 times.

7. A method of maintaining or promoting the

hydrophilicity of a polysilazane-containing coating film, which comprises steps of: preparing an undiluted solution of a hydrophilicity maintaining or promoting agent for a polysilazane-containing coating film, that is an aqueous solution with pH in the range of from 4.5 to 7.0, which comprises 5 to 25% by weight of an anionic surfactant, 0.5 to 20% by weight of an amphoteric surfactant, 4 to 6% by weight of a nonionic surfactant and, if necessary, an antiseptic; diluting the undiluted solution with water; and applying the dilute solution onto a polysilazane-containing coating film.